

## UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification								DATE: February 1999		
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07					R-1 ITEM NOMENCLATURE C3 Interoperability 0208045K					
COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Total Program Element	24.457	26.219	27.366	28.962	29.756	30.647	31.499	32.376	Contg	Contg
Center for Standards/T20	1.196	0*	0	0	0	0	0	0	Contg	Contg
Technology Assessment and Insertion/T80	.582	0**	0	0	0	0	0	0	Contg	Contg
Test and Evaluation/T30	14.670	17.110	17.750	18.849	19.437	20.104	20.699	21.446	Contg	Contg
Major Range Test Facility Base (MRTFB)/T40	8.009	9.109	9.616	10.113	10.319	10.543	10.800	10.930	Contg	Contg

A. Mission Description and Budget Item Justification:

Ensures that projects, programs, systems and subsystems implemented under the Defense Information Infrastructure (DII) are technically sound and operationally effective and suitable through test, evaluation and Compatability, Interoperability, and Integration (CII) certification. The CII of DII systems is addressed in multiple DoD regulations, which require new or modified programs to interact and interface with the DII. The emphasis in performing DII Test and Evaluation (T&E) is to determine the extent and success of full compatability, integration, interoperability and standards compliance of systems within the context of the DII framework. Functions as an Operational Test Agency (OTA) to test/certify the operational effectiveness and suitability of the Defense Information Systems Network (DISN), Defense Message System (DMS), Global Command and Control System (GCCS), and other strategic systems. This program element is under Budget Activity 07 because it involves efforts supporting operational systems development.

\* Project T20, Center for Standards, has been realigned to PE 0303149K, C4I for the Warrior.

\*\* Project T80, Technology Assessment and Insertion, has been realigned to PE 0303126K, Long Haul Communications, Project T82.

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APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE			
RDT&E, Defense-Wide/07	C3 Interoperability 0208045K			
B. <u>Program Change Summary:</u>				
	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>
Previous President's Budget (FY 1999)	24.913	26.296	27.807	29.380
Appropriated Value	25.670	26.296		
Adjustments to Appropriated Value	-1.213	-.77		
Adjustments to Budget Year Since FY 1999 President's Budget			-.441	-.418
Current Budget Submit/President's Budget (FY 2000)	24.457	26.219	27.366	28.962
Change Summary Explanation:				
Funding: FY98 changes due to undistributed congressional adjustments to Defense-wide RDT&E appropriation and below-threshold reprogramming.				
FY99 changes due to undistributed congressional adjustments to Defense-wide RDT&E appropriation.				
FY00-FY01 changes due to revised inflation rates.				
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Exhibit R-2a, RDT&E Project Justification									DATE: February 1999	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		PROGRAM ELEMENT C3 Interoperability/0208045K				PROJECT NAME AND NUMBER Test and Evaluation/T30				
COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Project Cost	14.670	17.110	17.750	18.849	19.437	20.104	20.699	21.446	Contg	Contg
<p>A. Mission Description &amp; Budget Item Justification: Through effective life cycle test and evaluation (T&amp;E), this project ensures the Defense Information Infrastructure (DII) systems meet the information needs of the warfighter by determining effectiveness and suitability as well as the extent of compatibility, integration, interoperability, and standards compliance of the system within the DII, based on criteria established by the warfighters. T&amp;E is performed throughout the life cycle including proof-of-concept, system development, system deployment, and system upgrade and modification.</p> <p><u>FY 1998 Accomplishments:</u></p> <ul style="list-style-type: none"> <li>o Provided Operational Test and Evaluation (OT&amp;E) of DoD's major C4I programs, such as DMS, GCCS, and DISN, for operational effectiveness and suitability by documenting critical operational issues through an appropriate test, and referring results to the decision authority. Performed Limited User Field Test (LUFT) of DMS version 1.1; Operational Assessment of DMS version 2.0A; and Operational Test and Evaluation of Global Command and Control System (GCCS) version 3.0. Performed Y2K testing on DMS 1.1b components. Provided support for testing, training and implementation of Navy's DMS Target systems. Upgraded the Navy NOVA (not an acronym) System from a 2 Drive System to a 4 drive system, doubling message storage/retention capabilities. Conducted implementation of Common User Digital Information Exchange System (CUDIXS) Release 11.1 at Norfolk, VA, which will reduce potential backlog situations. (Oct 97 - Sep 98, \$5.639M)</li> <li>o Provided test, evaluation and certification of C4I systems to ensure interoperability within and between systems, the sustaining base, the National Command Authority, and Service echelons and allies. Conducted T1/E1 and tactical switch interface tests. Performed Tactical Data Information Link (TADIL) A/B certification testing of Air Defense Tactical Operations Center (ADTOC). Completed testing of ARC-210 629F-7 terminal with AM-7526/ARC high power amplifier and Satellink low noise preamplifier/diplexer. Conducted the Deployed Internetworking Test (DIT) for certification of the Unit Level Circuit Switch Global Version 3D, ESOP, TPN, and TYC-39A. Included assessments of MSQ-126, TSQ-215, SOCOM SCAMPI, DISN STEP, Army TMS(DMS) and Force XXI initiatives. (Oct 97 - Sep 98, \$5.921M)</li> </ul>										
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APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		PROGRAM ELEMENT C3 Interoperability/0208045K				PROJECT NAME AND NUMBER Test and Evaluation/T30				
COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Project Cost	14.670	17.110	17.750	18.849	19.437	20.104	20.699	21.446	Contg	Contg
<p>o Provided technical and operational support and expertise to CINCs, Services and Agencies during exercises, real world contingencies and operational assessments. Provided Lessons Learned Reports on NIPRNET/SIPRNET addressing current interoperability problems and solutions. Supported OPERATION DESERT THUNDER by providing joint architecture interoperability on-site data, VTC, voice, COMSEC, and transmission systems interoperability assistance. Provided support to the following exercises: ROVING SANDS, COBRA GOLD, UNIFIED ENDEAVOR, COMBINED ENDEAVOR, BRIGHT STAR, etc. Published four issues of Lessons Learned Report with 1800 copies distributed to 1400 different warfighter units. Responded to approximately 250 hotline calls for technical assistance. (Oct 97 - Sep 98, \$3.110M)</p> <p>o Total \$14.670M</p> <p><u>FY 1999 Plans:</u></p> <p>o Provide test and evaluation of DoD's major C4I programs, such as DMS, GCCS, and DISN, by certifying critical requirements are supported by interoperable functionalities. Evaluate systems' operational effectiveness and suitability for fielding by documenting critical operational issues through an appropriate test, and referring results to the decision authority. Provide support for testing, training and implementation of Navy's DMS Target systems. (Oct 98 - Sep 99, \$7.016M)</p> <p>o Support production decisions of the Defense Acquisition Board (DAB) and fielding decisions of the Chairman, Joint Chiefs of Staff (CJCS) by providing test, evaluation and certification of C4I systems to ensure interoperability within and between systems, the sustaining base, the National Command Authority, and Service echelons and allies. (Oct 98 - Sep 99, \$6.729M)</p> <p>o Provide technical and operational support and expertise to CINCs, Services and Agencies during exercises, real world contingencies and operational assessments. Provide Lessons Learned Reports on NIPRNET/SIPRNET addressing current interoperability problems and solutions. (Oct 98 - Sep 99, \$3.365M)</p> <p>o Total \$17.110M</p>										

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APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NAME AND NUMBER				
RDT&E, Defense-Wide/07		C3 Interoperability/0208045K				Test and Evaluation/T30				
COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Project Cost	14.670	17.110	17.750	18.849	19.437	20.104	20.699	21.446	Contg	Contg
<u>FY 2000 Plans:</u> o Provide test and evaluation of DoD's major C4I programs, such as DMS, GCCS, and DISN, by certifying critical requirements are supported by interoperable functionalities. Evaluate systems' operational effectiveness and suitability for fielding by documenting critical operational issues through an appropriate test, and referring results to the decision authority. (Oct 99 - Sep 00, \$5.142M)  o Support production decisions of the Defense Acquisition Board (DAB) and fielding decisions of the Chairman, Joint Chiefs of Staff (CJCS) by providing test, evaluation and certification of C4I systems to ensure interoperability within and between systems, the sustaining base, the National Command Authority, and Service echelons and allies. (Oct 99 - Sep 00, \$4.776M)  o Provide technical and operational support and expertise to CINCs, Services and Agencies during exercises, real world contingencies and operational assessments. Provide Lessons Learned Reports on NIPRNET/SIPRNET addressing current interoperability problems and solutions. (Oct 99 - Sep 00, \$2.413M)  o Provide support for testing, training and implementation of the Navy's DMS Target systems. Evaluate DMS components within the Navy's existing and target architecture, providing results and lessons learned. (Oct 99 - Sep 00, \$5.419M) o Total \$17.750M  <u>FY 2001 Plans:</u> o Provide test and evaluation of DoD's major C4I programs, such as DMS, GCCS, and DISN, by certifying that critical requirements are supported by interoperable functionalities. Evaluate systems' operational effectiveness and suitability for fielding by documenting critical operational issues through an appropriate test, and referring results to the decision authority. (Oct 00 - Sep 01, \$5.458M)  o Support production decisions of the Defense Acquisition Board (DAB) and fielding decisions of the Chairman, Joint										

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<b>APPROPRIATION/BUDGET ACTIVITY</b> RDT&E, Defense-Wide/07		<b>PROGRAM ELEMENT</b> C3 Interoperability/0208045K				<b>PROJECT NAME AND NUMBER</b> Test and Evaluation/T30				
COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Project Cost	14.670	17.110	17.750	18.849	19.437	20.104	20.699	21.446	Contg	Contg

Chiefs of Staff (CJCS) by providing test, evaluation and certification of C4I systems to ensure interoperability within and between systems, the sustaining base, the National Command Authority, and Service echelons and allies. (Oct 00 - Sep 01, \$5.237M)

- o Provide technical and operational support and expertise to CINCs, Services and Agencies during exercises, real world contingencies and operational assessments. Provide Lessons Learned Reports on NIPRNET/SIPRNET addressing current interoperability problems and solutions. (Oct 00 - Sep 01, \$2.580M)
- o Provide support for testing, training and implementation of the Navy's DMS Target systems. Evaluate DMS components within the Navy's existing and target architecture, providing results and lessons learned. (Oct 00 - Sep 01, \$5.574M)
- o Total \$18.849M

**B. Other Program Funding Summary:** N/A

**C. Acquisition Strategy:** This project is supported by a competitively awarded, non-personal services contract composed of three prime contracts with multiple sub-contracts. The contracts, which are cost plus award fee, provide maximum flexibility in assignment of tasks for cost and technical effectiveness, and allow for expansion and contraction of staff years as workload expands and contracts.

**D. Schedule Profile:**

**FY 1998**  
 2nd Quarter - DMS 1.1/1.2/2.0 Y2K; DMS effectiveness database upgrade; DMS 2.0 Operational Assessment; DMS 1.1 Limited User Field Test; GCCS(T)v2.2 interoperability certification; DISN Operational Test & Evaluation status report; NOVA (not an acronym) operational assessment and software patch 9.5 implementation; Multi-Level Mail Server (MMS) site surveys, new software tests, operational assessments and certification testing; Functional Equivalency Testing on new DMS platforms; interoperability testing of transition systems with the DMS Target architecture; TADIL/US Message Text Format (USMTF) certifications; contingency/warfighter support.

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Project Cost	14.670	17.110	17.750	18.849	19.437	20.104	20.699	21.446	Contg	Contg
<p>4th Quarter - DISN cutover database, circuit cutover status charts, detailed status reports, access notification and cooperative test; TADIL/USMTF certifications; network C4I assessments; contingency/warfighter support; Deployed Internetworking Test; Joint Users Switch; Secure Mobile Anti-Jam Reliable Tactical Terminal IOT&amp;E.</p> <p><u>FY 1999 - FY 2005</u></p> <p>1<sup>st</sup> Quarter to 4<sup>th</sup> Quarter</p> <p>TADIL/USMTF certifications; Operational Test and Evaluation of new releases of DMS and GCCS; continue test and evaluation of DISN and systems interfacing with DISN; contingency and exercise support; Lessons Learned Reports and hotline technical support; operational assessments and implementations of Navy transition and target systems; interoperability testing and certification of scheduled DoD C4I systems.</p>										
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Exhibit R-3 Cost Analysis										DATE: February 1999		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT					PROJECT NAME AND NUMBER					
RDT&E, Defense-Wide/07		C3 Interoperability/0208045K					Test and Evaluation/T30					
<u>Test and Evaluation</u>												
Cost Category	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Engineering/Technical Services	CPAF/C	BDM Ft Hua, AZ	3.177	2.562	03/99	2.722	03/00	2.967	03/01	1.500	12.928	12.928
	CPAF/C	Interop Ft Hua, AZ	2.814	2.190	03/99	2.350	03/00	2.597	03/01	1.300	11.251	11.251
	CPAF/C	Validity Ft Hua, AZ	2.820	2.193	03/99	2.354	03/00	2.599	03/01	1.300	11.266	11.266
Subtotal Contracts				6.945		7.426		8.163				
In house				10.165		10.324		10.686				
Total Project				17.110		17.750		18.849				
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COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Project Cost	8.009	9.109	9.616	10.113	10.319	10.543	10.800	10.930	Contg	Contg
A. <u>Mission Description &amp; Budget Item Justification:</u> This project provides resources to operate DISA's Joint Interoperability Test Command (JITC) which is a member of DOD's Major Range Test Facility Base (MRTFB). Indirect operation/maintenance expenses, testbed maintenance, base operating support and facility and logistics support are included in this project.										
FY 1998 Accomplishments: o Recurring maintenance of JITC's automated systems to facilitate test and evaluation and maximize use of test assets; maintain the Corporate Database and other microcomputer applications to provide cost accounting reports to track and catalog customer expenses for internal and external processes and customer disclosure; continue to develop automated support for management of contracts, manpower and fiscal resources; provide base operations support to JITC's testing mission. (Oct 97 - Sep 98, \$1.540M)  o Maintain and operate the JITC test facilities at Fort Huachuca, AZ; VA and Cheltenham, MD for DOD use; provide other indirect mission support. (Oct 97 - Sep 98, \$6.469M) o Total \$8.009M										
FY 1999 Plans: o Recurring maintenance of JITC's automated systems to facilitate test and evaluation and maximize use of test assets; maintain the Corporate Database and other microcomputer applications to provide cost accounting reports to track and catalog customer expenses for internal and external processes and customer disclosure; continue to develop automated support for management of contracts, manpower and fiscal resources; provide base operations business support to JITC's testing mission. (Oct 98 - Sep 99, \$1.560M)  o Maintain and operate the JITC test facilities at Fort Huachuca, AZ; VA and Cheltenham, MD for DOD use; provide other indirect test mission support. (Oct 98 - Sep 99, \$7.549M) o Total \$9.109M										

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Project Cost	8.009	9.109	9.616	10.113	10.319	10.543	10.800	10.930	Contg	Contg

FY 2000 Plans:

- o Recurring maintenance of JITC's automated systems to facilitate test and evaluation and maximize use of test assets; maintain the Corporate Database and other microcomputer applications to provide cost accounting reports to track and catalog customer expenses for internal and external processes and customer disclosure; continue to develop automated support for management of contracts, manpower and fiscal resources; provide base operations business support to JITC's testing mission. (Oct 99 - Sep 00, \$1.560M)
- o Maintain and operate the JITC test facilities at Fort Huachuca, AZ and National Capital Region for DOD use; provide other indirect test mission support. (Oct 99 - Sep 00, \$5.138M)
- o Maintain and operate the JITC test facilities at Cheltenham, MD for DOD use; provide other indirect test mission support. (Oct 99 - Sep 00, \$2.918M)
- o Total \$9.616M

FY 2001 Plans:

- o Recurring maintenance of JITC's automated systems to facilitate test and evaluation and maximize use of test assets; maintain the Corporate Database and other microcomputer applications to provide cost accounting reports to track and catalog customer expenses for internal and external processes and customer disclosure; continue to develop automated support for management of contracts, manpower and fiscal resources; provide base operations business support to JITC's testing mission. (Oct 00 - Sep 01, \$1.560M)
- o Maintain and operate the JITC test facilities at Fort Huachuca, AZ and National Capital Region for DOD use; provide other indirect test mission support. (Oct 00 - Sep 01, \$5.552M)
- o Maintain and operate the JITC test facilities at Cheltenham, MD for DOD use; provide other indirect test mission support. (Oct 00 - Sep 01, \$3.001M)
- o Total \$10.113M

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COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Project Cost	8.009	9.109	9.616	10.113	10.319	10.543	10.800	10.930	Contg	Contg

B. Other Program Funding Summary: N/A

C. Acquisition Strategy: This project is supported by a competitively awarded, non-personal services contract composed of three prime contracts with multiple sub-contracts. The contracts, which are cost plus award fee, provide maximum flexibility on assignment of tasks for cost and technical effectiveness, and allow for expansion and contraction of staff years as workload expands and contracts.

D. Schedule Profile:

FY 1998 - FY 2005

1<sup>st</sup> - 4<sup>th</sup> Quarter: Host Base Operations Support, MRTFB mandated cost accounting information systems, overhead supporting MRTFB, and testbed infrastructure.

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Exhibit R-3 Cost Analysis										DATE: February 1999		
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Major Range Test Facility Base (MRTFB)												
Cost Category	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Engineering/Technical Services	CPAF/C	BDM Ft Hua, AZ	.909	.730	03/99	.790	03/00	.850	03/01	.400	3.679	3.679
	CPAF/C	Interop Ft Hua, AZ	3.063	2.536	03/99	2.596	03/00	2.668	03/01	1.000	11.863	11.863
	CPAF/C	Validity Ft Hua, AZ	.813	.674	03/99	.735	03/00	.795	03/01	.400	3.417	3.417
Subtotal Contracts				3.940		4.121		4.313				
In-house				5.169		5.495		5.800				
Total Project				9.109		9.616		10.113				
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